The
Spotting Scope

A quarterly newsletter of the Natural Heritage Program Spring 2006
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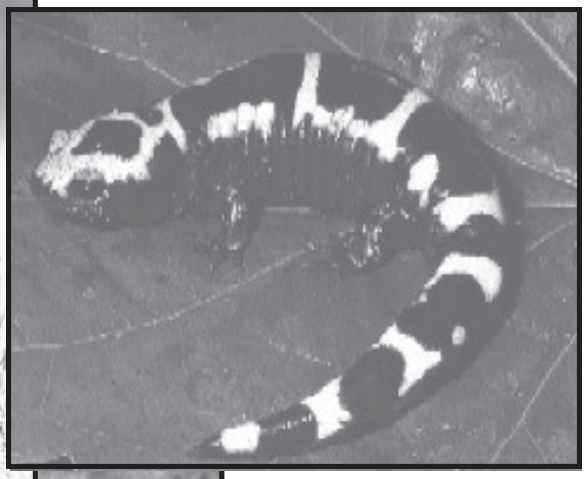
AH, SPRING!!

With February's winter weather weighing down like a heavy overcoat, many people turn their attention out across recently sun-glazed snow for signs of season change. There are signs, and they sweep north in their occurrence as March melts into April. Already there has been encouragement like the mournful hoot of owls and the chipper call of cardinals in search of lovers and the appearance of delicate green heads of crocus peeking through the receding snow.

Spring can officially be declared with the March arrival of male red-winged blackbirds. Robins soon follow. Riding on the tail of a weather front, they are often accompanied by a couple of sunny days and radiant heat that punctuate what we are already suspecting—spring! If we do not catch cold as we revel in this spring tonic, we will continue to be outside to enjoy the arrival of turkey vultures, hawks, and bluebirds. Woodchucks make their cameo appearance—it's been 6 weeks! With the waning days of March, first frogs can often be heard as they slowly speak of another year.



April is a time for the greening of plants. Even weak sunlight is enough to reach down and stimulate dormant plants like strawberries and hawkweeds whose green leaves were covered by snow last winter. This sun also warms the buds of juneberry bushes, dogwoods, and dewberries. By late April, dandelions are in bloom, especially if spring showers help to warm the soil.

If April is a time for plant greenery, then May is for flowers. Spring beauties, trailing arbutus, and May apples are just a few of the spring ephemerals who rush to flower before being shaded by the emerging leaves of overtopping trees. Rushing to also flower are the shrubs like dogwood and spicebush that need full sunlight to produce their petals.

These flowers seem to usher in the insects for another year. Hovering from one bloom to another, they carry the pollen that carries the promise of seeds for these plants. The appearance of insects is all that is needed to make way for the last migrating birds of spring. Warblers, flycatchers, hummingbirds, and swallows are among those with May debuts. Young rabbits, squirrels, deer, and robins.

NONGAME WILDLIFE FUND

In This Issue:

Natural Heritage Program information can be found on the web at www.michigan.gov/dnr.

MICHIGAN'S LITTLE JEWELS

While there are more than 300 species of hummingbirds in the world, only the ruby-throated hummingbird (*Archilochus colubris*) is commonly found in Michigan. They may be found throughout the state from spring until the end of summer.


Male ruby-throated

Hummingbirds begin to return from their wintering grounds in Mexico and Central America by mid-April in the southern Lower Peninsula, and early May in the Upper Peninsula. Males typically arrive on the breeding grounds in advance of females. The sexes can be differentiated easily: adult males have an iridescent ruby-colored patch on their throat and chin; females lack this red patch and have a clean white chin, throat, and breast.

The hummingbird's most distinctive characteristic is its flight. They can beat their wings up to 80 times per second enabling them to fly vertically and in reverse along with the normal flight patterns seen in other birds. Over short distances, they can reach speeds in excess of 60 miles per hour! In the spring, males may perform aerial courtship maneuvers for females: either shuttling back and forth or looping in front of a potential mate. These birds are not monogamous, and the male plays no part in the construction of the nest or rearing of the young.

Rubythroats can be enticed into close proximity to people by the presence of hummingbird feeders. If you see a female frequenting your hummingbird feeder, you may be able to find her nest by carefully watching where she flies after leaving the feeder. Females often follow the same path between their nest and a nearby food source. Nests are tiny, about 1½ inches in diameter, and consist of a deep cup on a horizontal tree limb constructed out of plant down, plant fiber, and spider silk with lichens and leaves pasted to the outside for camouflage. A typical clutch contains 2 dime-sized white eggs which are incubated for 13-16 days. Young leave the nest after 2-3 weeks.

Rubythroats are very tenacious for such a tiny bird. By providing a food source for your neighborhood hummingbirds, you may give yourself an opportunity to observe some of their animated behavior. In the spring, males especially will display aggressive behavior toward rival hummers, other birds, and even bees and butterflies. Often, they become accustom to human presence and will swoop down on a person to investigate especially if clothing is red or brightly colored like a potential food source.

The bulk of the hummingbird diet is nectar - a sweet liquid produced by some flowers. This means that you are likely to see males feeding and charging each other in aerial chases through the spring and summer. As the breeding season progresses, females will appear gathering food for their young. Juvenile birds begin foraging at feeders in midsummer and are virtually the same size as the adults by this time.


Female ruby-throated

Hummingbirds will start feeding to fatten up for migration in the late summer, after all young birds are out of the nest and foraging for themselves. Birds start leaving northern Michigan in September and move out of southern Michigan in October and even November. You can learn more about hummingbirds by visiting the Hummingbird Society Web site

Attracting hummingbirds to your yard:

Cultivate plants which produce nectar to attract hummers. Showy red tubular flowers work best but columbine, penstemon, bee balm, cardinal flower, fuchsia, petunias, and many other perennials and annuals will also work.

Hummingbird feeders can be found at garden centers and department stores. Look for a feeder which has red components. Ants, bees, wasps, or other insects may also find your feeder attractive; feeders with "bee guards" or deeper bell-shaped feeding holes may help to deter these insects. An "ant moat" will prevent ants from crawling into your feeder.

It is easier and cheaper to make your own nectar. Mix 1 part white table sugar to 4 parts water. Boil the water to retard spoiling and, if municipal water, to retard any chlorine present. Add sugar, cool mixture, then fill feeders. Extra sugar water may be stored in the refrigerator for up to a week. Do not mix honey, brown sugar, or food coloring into your nectar. Clean your feeder and replace the nectar regularly; if the nectar appears cloudy, it is fermenting and unhealthy for the hummingbirds. Use a bottle brush and hot water to clean your feeders.

Don't be surprised to hear a sound like a very large bee circling you when you are taking your feeders down to clean and refill. It is just your neighborhood hummingbirds, comfortable enough at your feeders, to come close.

Photos by Al Menk

ROUND LAKE FLOATER: AN IMPERILED SPECIES OR JUST ANOTHER GIANT FLOATER?

The round lake floater (*Pyganodon subgibbosa**) is a freshwater mussel that is listed as state-threatened in Michigan. This species is known from only four locations in southwest Michigan, all of which are lakes at the mouth of rivers near where they flow into Lake Michigan. One of these locations is in Lake Macatawa near Holland in Ottawa County where it was first collected in the 1870s. The other three locations are in Muskegon County: Mono Lake, Bear Lake and White Lake. Given that these are the only known locations for the species, the round lake floater appears to be an extremely rare species that may only occur in Michigan. No recent surveys have been done for this species and all known locations are from old records, so the status of this species is unknown and it may even be extinct.

Giant floaters often obtain a length of 10 inches

Despite these concerns, it is possible that the round lake floater isn't even a species. The round lake floater has been separated from the more-common giant floater (*Pyganodon grandis)* based on differences in shell characteristics (shells from the locations listed above are housed at the University of Michigan Museum of Zoology). However, many mussel species, including giant floaters, have been demonstrated to have highly variable shell characteristics, probably due to differences in environmental conditions. So whether the round lake floater represents a separate species or is just a variation of the giant floater is currently not known.

A study by Dr. Randy Hoeh of Kent State University, which was awarded funding under the 2006 Natural Heritage Grants Program, will determine the status of the round lake floater as a species and, if it is a species, estimate its distribution in the state. Mussel surveys will be conducted at historic sites and other appropriate locations (i.e., nearby, similar habitat) and DNA techniques will be used to determine whether the round lake floater is genetically distinct from the giant floater. If the round lake floater is genetically different, these results will be compared with shell measurements so that a key can be developed for identification of Michigan *Pyganodon* species.

The study will have important management implications. If the round lake floater is found to be nothing more than oddly-shaped giant floaters, it can be removed from Michigan's list of threatened and endangered species. If it is confirmed to be a distinct species, the study will attempt to estimate its geographic range and the key can be used for further surveys to determine other locations and the overall status of the species in the state. This information will inform management decisions toward round lake floater conservation.

*The scientific name listed for the round lake floater is Anodonta subgibbosa on Michigan's official list of Endangered and Threatened species, but scientists have changed the name since the time of our last official list revision.

NONGAME FISH & WILDLIFE FUND DONATION CARD

The Nongame Wildlife fund is the primary source of funding for the management of nongame and endangered animals, plants, and their habitats in Michigan. Your donation will assist in surveying Michigan's breeding birds, osprey releases in southern Michigan, controlling invasive species, and enhancing habitat for Karner blue butterflies.

Yes, I want to help! ☐ $10.00 ☐ $25.00 ☐ $50.00 Other _____

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DON'T BE AFRAID - IT'S ONLY A SNAKE!

As you work or play in your yard or garden this spring, there is a good chance that you may encounter one of Michigan's 17 snake species. To some, an encounter with a snake offers a look at a fascinating creature. But to others, snakes bring on a deep, primordial fear.

Snakes live across all available habitats in Michigan including forests, grasslands, wetlands, lake shorelines, agricultural lands, and urban areas. Different snake species prefer different habitats, depending upon their life-history needs and limitations. Typical backyard species include the northern brown snake, eastern milk snake, and Michigan's most familiar snake, the common garter snake. The northern red-bellied snake, black rat snake, and the northern hognose snake also turn up in suburban or urban areas. Many other snakes can occasionally be found in suburban or rural yards, depending upon proximity to nearby habitat.

Snakes play important roles in our ecosystems. They eat a wide variety of foods and provide food for many animals. Smaller snakes tend to feed on worms, insects and slugs. Larger snakes typically feed on rodents, frogs, birds, other reptiles, and a variety of eggs. Aquatic snakes usually feed on frogs, crayfish, tadpoles, and salamanders. In areas where other natural predators are uncommon, snakes may play an important role in reducing rodent populations. Snakes are commonly eaten by hawks, owls,opossums, herons, raccoons, foxes, skunks, and many other wildlife species, including other snakes.

When threatened, the eastern hog-nosed puffs up with air, flattens its neck like a cobra, and hisses loudly. If the threat continues, they ofen lay belly up playing dead.

Snakes are commonly incorrectly identified, misunderstood, and highly feared. Children may learn from adults or television programs that snakes are dangerous. Often children learn that snakes are to be destroyed when encountered. Since most people are unfamiliar with the variety of snakes that occur in the state, many just assume that any snake encountered may be poisonous. But most snakes are completely harmless and Michigan's only venomous species, the eastern massasauga rattlesnake, can be easily identified and avoided with simple precautions.

Many snake species will coil and assume an aggressive stance when threatened. This may seem a little scary, but that is their way of trying to frighten away predators and to them you are just another predator. So if your adrenaline surges a bit and you back off, their strategy worked. But this aggressive stance doesn't mean that they are poisonous or even that they want to attack you. On the contrary, they just want to be left alone.

The eastern massasauga rattlesnake is normally shy and avoids confrontation. It is are Michigan's only venomous snake and should be left alone. Photo by Dan Kennedy

Several snake species are of conservation concern in Michigan. These include four wetland-dependent species, the federally-threatened and state-endangered copperbelly watersnake, the state-endangered Kirtland's snake, the state-threatened eastern fox snake, and the federal-candidate eastern massasauga. Each of these species has declined largely due to destruction of wetlands and adjacent upland habitat and persecution from humans. The special concern black rat snake, Michigan's largest snake (it can reach more than 8 feet in length), is a harmless species that has been impacted by human persecution, road mortality, collection by hobbyists, and residential and commercial development.

Fortunately, an increase in the availability of information on snakes (e.g., school programs, Internet, etc.) is leading to increasing tolerance of snakes in the state. Their role as predators is increasingly valued and they are often appreciated as fascinating animals as people learn that the vast majority are harmless.

Threatened, endangered and special concern snakes are protected from persecution and exploitation in Michigan. Anyone wishing to take or study reptiles or amphibians in the state should contact the Department of Natural Resources Fisheries Division for details on licensing or permitting requirements.

More information can be found on the biology, ecology and conservation of snakes at www.michigan.gov/dnr in the Wildlife Species section. Additional information on the eastern massasauga rattlesnake can be found in the Winter 2003 spotting scope, in the Michigan Natural Features Inventory massasauga species abstract, or at the Center for Reptile and Amphibian Conservation and Management Web site.

RAISING AWARENESS

Invasive Species: Our Silent Invader

Part three of a three part series: **Wetland Invasives**

Throughout this series on invasive species, we have emphasized the importance of learning about these species and being able to identify them and how to control them. Educating people on this topic is a big step in stopping the introduction and spread of the invasive species that have a detrimental effect on our environment. In this third and final part of our series, we are going to cover a few species that are invading our wetland ecosystems. These species have detrimental affect on our wetland ecosystems and consequently have a negative effect on the wildlife that utilize these wetlands.

PURPLE LOOSESTRIFE

Purple loosestrife *(Lythrum salicaria)* is a wetland perennial that was introduced from Europe in the 1800s as a medicinal herb, nectar plant for honeybees, and as a garden plant. Without the natural means of control of its homeland, purple loosestrife has spread rapidly throughout the Midwest and is threatening native plants and the wildlife that depend on them. Once it is established, it overruns wetlands and can eliminate almost all other vegetation. It grows well in moist soil and shallow water and will grow to a height of 3-7 feet. This plant is very showy with pink or purple flowers that have 5-6 petals. The flowers grow on stalks and will bloom from the bottom of the stalk up from early July to September. A mature plant with fifty or more stems can release as many as two million seeds a year! The best way to control purple loosestrife is to prevent people from planting it and removing it from gardens where it is currently planted. Unfortunately, purple loosestrife is still promoted by some horticulturists for its beauty and by beekeepers as a nectar source. Small plants can be pulled by hand or dug out, but be sure all roots are removed. Use of a selective herbicide may be effective but be sure to use an herbicide labeled for use near water. Recently, there has been promising results using beetles from Europe to control large infestations.

PHRAGMITES

Phragmites (*Phragmites australis)*, also known as common reed grass, is a natural part of many wetlands, but some strains are believed to be nonnative and are highly aggressive. They will form dense stands with few native species. This warm season perennial grass can be found along roadside ditches, open wetlands, river banks, and other wet areas. Phragmites will reach heights from 3-20 feet and the seed heads are large, dense, feather-like, grayish plumes that are 5-16 inches long. They are produced in July through September and will become brown as they mature. The main means of reproduction is through its rhizomic root system and clonal expansion. Chemical application with a selective herbicide seems to be the best means of control. Again, be sure to use a herbicide that is labeled for use near water.

GLOSSY BUCKTHORN

Glossy buckthorn *(Rhamnus frangula)* is originally from Europe and Asia and was introduced to the Midwest as an ornamental shrub in the mid 1800's. It is commonly found along woodland edges but is most aggressive in wet soils. Since it leafs out early in the spring and holds its leaves late in the fall, it makes it hard for native species to compete for sunlight and nutrients. This characteristic also makes it easy to identify late in the season because it stays green longer than native species. It is a shrub that will reach 10-25 feet in height and will have several stems at the base that will spread upward. Flowers are small, yellow, have five petals, and will bloom from late May to the first frost. The pea-sized fruit will ripen from July to September and will turn from red to dark purple. Birds will readily eat the fruit and spread the seeds. Smaller trees can be pulled or dug out. In an area where the water level can be manipulated, flooding the area will often kill glossy buckthorn. For larger infestations, spraying a selective herbicide that is approved for use in wetlands can be used.

Raising awareness of invasive species may be the most important aspect of controlling them. Once people learn about this topic and learn how to identify these species, steps can then be taken to reduce or control them. Through this series, we hope to inform people about these particular species as well as raise awareness that this is a much larger issue that needs to be addressed before it may be too late.

TIDBITS

The cable TV network Animal Planet and the National Wildlife Federation have joined together to create the television series *"Backyard Habitat."* The program airs Monday through Friday at 11 a.m. EST. Each episode will present easy, enjoyable ways to attract wildlife to your property, even if all you have is a balcony in the city. *"Backyard Habitat"* wants to help homeowners "turn outdoor spaces into animal places".

GUIDED KIRTLAND'S WARLER TOURS

The U.S Fish and Wildlife Service, U.S. Forest Service, and Michigan Audubon Society have announced the dates for the annual Kirtland's warbler tours. The guided tours offer bird watchers an opportunity to observe the endangered Kirtland's warbler and view their nesting areas.

The U.S. Forest Service will conduct daily guided tours from May 15 through July 2. Tours depart at 7:00 a.m. from the Mio Ranger Station in Mio. The cost is $5.00 per person of which 80% of these funds help the Forest Service cover the cost of the tours. There are no tours on Memorial Day. For more information: www.fs.fed.us/r9/hmnf/pages/kirtland.htm or telephone 989-826-3252.

U.S Fish and Wildlife Service and the Michigan Audubon Society haveguided daily tours from May 15 through July 4, departing from the Holiday Inn in Grayling. Tours depart at 7:00 a.m. and 11:00 a.m. and are free of charge. For more information: www.midwest.fws.gov/EastLansing/documents/tour.html or telephone Michigan Audubon Society at 517-886-9144.

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